Nuclear Apartheid is Justified

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Abstract

Nuclear apartheid is the condition of great powers maintaining nuclear arsenals while prohibiting other states from building similar weapons. Some have argued that nuclear apartheid is an unjust arrangement because of its inherent inequality and discrimination. I argue that because of the role differentiation between great powers and minor powers, nuclear weapons in the hands of great powers actually produce a more stable international system than either alternative of mass nuclear proliferation or total disarmament and on this basis find it normatively superior.

Introduction: Why is this a Problem?

"Nuclear weapons powers continue to have, but preach to the have-nots to have even less. India counters by suggesting either universal, nondiscriminatory disarmament or equal security for the entire world" (Singh, 1998).

In 1996, the International Court of Justice declared that there is an international obligation to bring negotiations leading to comprehensive nuclear disarmament to an end. The notion that the world would be safer if nuclear weapons did not exist is intuitive; without the capacity to so quickly (and potentially accidentally) annihilate ourselves, that possibility is constrained. Conversely, that we are safer because we can so quickly bring our existence to an end is counterintuitive. Jaswant Singh (1998) gave a normative argument for India's proliferation on the basis that if there were to continue to be nuclear weapons powers, then it is illegitimate that India should not be one of them. He makes this argument on the basis of the inequality

between the security of states perpetuated by some having nuclear weapons and others not being unjust.

The condition of international institutions recognizing the legitimacy of only some states maintaining nuclear arsenals will hereinafter be referred to as "nuclear apartheid." Invoking apartheid to refer to a distribution of capabilities in the international system adds moral weight where it may not be appropriate, but in the spirit of assuming the most difficult case to argue against I use the term throughout this paper while showing that, on moral grounds, the condition is justified.

Singh makes his argument while invoking numerous particularities of the Indian experience. Indeed, being sandwiched between nuclear Pakistan and nuclear China while both show aggression toward India may justify Indian proliferation. The aim of this paper is not to pursue case studies of when nuclear proliferation is justified, it is to show that the ideal international system is one wherein great powers have nuclear weapons while minor powers do not.

India's population makes it a potential great power, but a taxonomy of great powers is also not within the scope of this paper. It serves that there is a clear difference between obvious great powers (such as the United States) and obvious minor powers (such as Nicaragua). The argument assumes that there is a clear line between the two classifications of great power and minor power, but there are cases of gray area. Models serve to help understand the world and social life by simplifying it though, and while power exists on a continuum rather than as distinct categories with clear lines, breaking the continuum into categories is useful here and not altogether unrealistic; some states are categorically more powerful than others. As a result of

their different positions on the continuum of power, great powers and minor powers behave differently because they maintain distinct roles.

That there is a qualitative difference between great and minor powers and how they interact with one another is the first line of attack against the case for equality as a good in itself. Treating qualitatively different units identically is not necessarily conducive to achieving a normative end, which here is identified as stability in the international system. If it is the case that one can have equality and instability, or inequality and stability but not equality and stability, as I will argue, it is not obvious that equality is a good in itself because the result is normatively undesirable.

Nuclear apartheid is the middle ground between the arguments made by Waltz and Sagan (1995). Whereas Waltz contends that if all states had nuclear weapons they would all be deterred from conflict initiation, Sagan finds that nuclear weapons in the hands of any state are too dangerous. These arguments constitute polar opposites: one holds that all states should have nukes and the other holds that no states should have nukes. Both begin on the supposition that there are similarities between all states that render the outcome of their having nuclear weapons one way or the other. I challenge that supposition and find qualitative differences between states relevant to the implications of their proliferation, specifically their role in the international system. It can be said that this quality of states is intrinsic to them as the international system constitutes states as states constitute the international system.

Nuclear apartheid may not be something academics debate pressingly; proliferation has moved slowly where it has moved at all. The system now is one of nuclear apartheid, and arguing in favor of the status quo does not pose an immediate interest. However there is rich theoretical work to be done in understanding the difference that nuclear weapons make when

added to the militaries of minor or great powers. Further, if it is the case that nuclear apartheid comes with certain benefits, as I argue it does, then it deserves a statement of approval and a more or less detailed argument dedicated to supporting it so that it may be defended against the likes of Waltz, Sagan, and Singh.

Finally, nuclear weapons are a decent base on which to make another central point on the qualitative differences between states. Where Waltz (1979) writes that states are like units and only distribution of capabilities is of concern, I argue that the role of states in the international system is fundamental to their tendencies. It is not just their raw capabilities that determine their tendencies, because in many ways nuclear weapons serve as an equalizer between minor and great powers. Nevertheless minor powers with nuclear weapons remain minor powers and will behave differently than great powers with nuclear weapons.

The argument proceeds first by arguing that nuclear deterrence between great powers is effective. This is a counterpoint to Sagan's argument that organization theory finds that nuclear weapons ought to be dismantled entirely to avoid organizational deficiencies. There is utility in maintenance of nuclear arsenals by great powers: they prevent great power conflict. This does not totally negate Sagan's arguments, for example that accidents involving nuclear weapons may occur is a legitimate concern even if nuclear weapons do serve to deter. There is a calculation of risk and reward to be made. I believe that the risks of a few states having nuclear weapons are outweighed by the benefits of those states having them, namely in the prevention of direct conflict between them.

The risks are lower when fewer states have them because fewer organizations must maintain standards of doctrine sufficient to safely maintain nuclear arsenals. When more states have them, the odds that one will act irresponsibly increase. The first section serves as a brief

defense of deterrence theory as well as to provide empirical evidence that nuclear weapons do in fact come with such rewards.

The next section responds to Waltz. More states having nuclear weapons is not better, so the argument goes, because of the difference in the role between great powers and minor powers. Essentially, the presence of nuclear weapons in the system constrain great powers, because they cannot exert their will as they otherwise would without fear of nuclear conflict. Minor powers are not similarly constrained though, because nuclear weapons embolden them to pursue their interests more vigorously through games of nuclear brinkmanship, which serves to destabilize the system.

Next I further illustrate the importance of the great power role, not just as a state with superior military capabilities to minor powers, but as the center of alliances or blocs. The importance of this fact is found in extended deterrence not just between nuclear powers, but between alliances wherein one power maintains such an arsenal. The result is that minor powers can be secure even if they do not provide for their own security and are reliant on others to do so. The mutual interest in the formation of an alliance between great powers and minor powers allows for the states to trust one another.

Stein (1982) explains this allowance for mutual trust with the example of road laws on which side of the street one must drive. If it is agreed upon that everyone will drive on the right side of the road, everyone can trust that everyone else will drive on the right side of the road because no one has an interest in breaking this norm. Similarly, if great and minor powers ally because they see an interest in so doing, then acting such as to dismantle the alliance is contrary to their initial behavior and thus their perceived interest.

I then take up the intersection of normative and empirical matters pertaining to the topic. Though a survey of all relevant matters on this intersection would be far too extensive for this paper, a substantive, normative definition of stability and justification for that definition is given. As the definition stands as a normative standard and it is argued that nuclear apartheid is a means to the end of achieving that standard, the conclusion is that nuclear apartheid is justified.

I. Nuclear Deterrence Works Between Great Powers

Whether or not nuclear weapons make a difference in international politics is an important and relevant matter. Nuclear weapons must present unique material conditions which demand unique policy from states who have them and from states faced with those who do, or the questions that surround them are not interesting because the consequences are no different from conventional weapons. It is also not obvious that nuclear weapons do present unique material conditions. Empirically, non-nuclear states do not further constrain their hostile activity toward nuclear actors (Kugler and Organski, 1980). What's more, non-nuclear powers partake in escalatory behavior against nuclear powers (Geller, 1990). The reliability of nuclear weapons as a deterrent is therefore in question.

Kilgour and Zagare (2000) work to answer a paradox in classical deterrence theory: the chicken game. In the conventional wisdom, the costliness of nuclear war is so high that it is the worst possible outcome for all players in a game. The problem is that since nuclear war is the worst possible outcome for actors, the threats of any actor to escalate that far are not credible, therefore should not serve to deter. States can do as they please, in classical deterrence theory, without worrying about nuclear retaliation because they know that it is not in the interests of

other states to escalate to nuclear conflict. As a result, classical deterrence theory falters in explaining the success of deterrence.

Perfect deterrence theory takes into account the credibility of threats to make predictions, and escapes the problems of classical theory, but eschews that conflict is the worst possible outcome for all actors in all circumstances. By introducing uncertainty about the preferences of other players, Kilgour and Zagare (1991) introduce uncertainty about the willingness of other players to retaliate. This allows for an equilibrium in deterrence.

Empirically, deterrence between nuclear powers is successful (Weede, 1983), though nuclear weapons do not always serve to prevent escalatory behavior by non-nuclear powers. Some theoretical explanation for these phenomena is necessary, otherwise one cannot be sure whether this is a necessary outcome of these particular material conditions or a contingent fact. Also necessary is a theoretical explanation for why nuclear weapons serve to prevent war between great powers but conventional weapons do not, if that is truly the case.

Wirtz (2018) illustrates the important respect in which nuclear deterrence varies from conventional deterrence: contestable costs. A revisionist state may challenge the status quo when only conventional forces serve to deter because the costs of doing so are ambiguous, whereas the costs of nuclear weapons are more obvious. There may be a positive outcome to the conflict even if the revisionist state is outmatched conventionally, which is why Japan was willing to attack the United States in 1941, and Iraq was willing to invade Kuwait in the 90's despite threats of the United States to intervene.

In the Japanese case, it was not anticipated that Washington would quickly respond to the naval setback at Pearl Harbor but would instead seek to reach an agreement with Tokyo. In the Iraqi decision, Saddam Hussein did not believe the United States would be willing to make the

sacrifices he believed it would have to in order to achieve its goals with Iraq (Wirtz, 2018). Iraq did not have nuclear weapons at its disposal while it knew that the United States did. Iraq's decision to invade Kuwait despite threats of intervention by a nuclear power show that Iraq did not believe the United States would use nuclear weapons, allowing the ambiguity of outcome in conventional conflict to inform Iraq.

According to Wirtz, the very destructiveness of nuclear weapons undermines the credibility of the threat they pose. Iraq did not believe the United States would use nuclear weapons by virtue of the destruction that would result. The credibility of the threat of nuclear weapons only grows when the threat to a nuclear power is existential, or when a nuclear power's options are constrained. Iraq's invasion of Kuwait did not pose a directly existential threat to the United States, and the United States' options were not constrained to the use of nuclear weapons; it could let Kuwait go. As a result, the threat of nuclear weapons was minimized. This is why, empirically, nuclear weapons do not deter non-nuclear states from hostile behaviors.

Threats between great powers are potentially existential. The United States and Soviet Union perceived one another to pose existential threats to one another, so the credibility of nuclear threats was legitimate. NATO paved a way to nuclear escalation with its "flexible response" doctrine which served to deter Soviet aggression. This meant that nuclear weapons would be used to deter Soviet expansionism even in cases where the threat was not directly existential to the United States, but the threat was still credible. It was so because the options of NATO members were constrained, and the U.S. and NATO entertained the possibility of initiating nuclear conflict (subsequent to conventional conflict) against Warsaw Pact aggression as they found themselves, in certain circumstances, conventionally outmatched (Schwartz, 1975).

Therefore, there are means by which nuclear threats can be made credible to a potential aggressor, and perfect deterrence theory helps to explain the success of deterrence by nuclear weapons where classical deterrence fails. Even though nuclear threats do not always serve to deter aggression by minor or non-nuclear powers, they do serve the cause of preventing wars between nuclear powers which pose existential threats to those powers, i.e. world wars or other great power conflicts.

In a 1978 survey of West German elite, 70% of respondents attributed avoidance of war between east and west to deterrence (Weede, 1983). In 1978, West German elite believed in deterrence, but whether or not they were right about why war had not broken out is not obvious. Weede (1983) makes an empirical statistical analysis on the efficacy of nuclear deterrence by applying it not only to nuclear superpowers, but to their non-nuclear allies whom the super powers agreed to protect. He finds that deterrence is not only between superpowers, but between blocs and attributes this to fear of escalation. Nuclear deterrence, he finds, is responsible for interbloc peace and is therefore empirically shown to be effective in deterring the initiation of conflict which risks escalation to nuclear war.

As conventional forces do not serve to deter threats in the same capacity, it is the case that nuclear weapons are a unique material condition with implications that differ from concentrations of conventional forces. Nuclear weapons deter aggression by threat of retaliation with unambiguous costs. Conventional forces are better suited to deterrence by punishment or denial (Wirtz, 2018).

Deterrence by punishment is threatening inflicting growing costs on an actor until the interests for which they aggress are abandoned. This could be an escalation of conventional conflict or inflicting more casualties on the enemy. Deterrence by punishment with conventional

forces allows the signal that worse is yet to come, whereas the use of nuclear weapons immediately signals that an existential threat to the aggressor is at hand. With conventional weapons, a revisionist state may abandon their interests knowing that they cannot be attained because they do not have the conventional forces necessary and negotiate a peace. If nuclear weapons are used, the signal to the aggressor is that the time for negotiating is over.

Deterrence by denial strategies communicate that an aggressor will simply be denied their goals if they push to achieve them. For example, if a state perceives an interest in slicing off a portion of territory from its neighbor, deterrence by denial would lead the neighboring state or an intervening one to signal that this is not an attainable goal as the aggressor will be defeated in battle and sent home should they invade. Conventional forces are more useful for this type of deterrence because the credibility of threat by nuclear weapons in cases where deterrence by denial would be employed is not great enough (Wirtz, 2018). Nuclear weapons deter by retaliation better than conventional forces because the cost is unambiguous, the outcome is uncontestable, and the threat is unable to be mitigated; even if the nuclear power is defeated on the battlefield, they may still deploy nuclear weapons and an aggressor cannot be confident in their ability to neutralize their enemy's nuclear capability.

As conventional forces and nuclear forces are suited to deter differently and deter different sorts of threats, it becomes trivially true that they may differently suited to preserving stability in the international system. The important premise here is that nuclear weapons prevent war among major powers and preserve stability in that regard. Conflict between great powers does not need to constitute a threat to stability, depending on how one defines conflict. Proxy wars between the Soviet Union and the United States did not serve to undermine the stability of the international system but could still be broadly considered conflict between the powers.

Retaliatory deterrence by nuclear weapons does prevent the escalation of that conflict to the extent that it would undermine the stability of the international system because it prevents the escalation to an extent. Neither state would move to actuate an existential threat to the other when nuclear weapons present the possibility of devastation. When nuclear weapons do not factor into their calculations, great powers are willing to present such existential threats to one another because the risks are smaller and the possibility of achieving their goals is real. Germany could have annihilated the Soviet Union and not face retaliatory nuclear strikes during World War II, but if both states were nuclear powers, then even if Germany won handily on the battlefield, she would still face devastation. Conventional deterrence by punishment and denial between great powers when the outcome of war is contestable does not prevent major conflict and has not historically. Nuclear deterrence by retaliation does prevent major conflict by the logic of deterrence theory and this is empirically demonstrated by the success of nuclear deterrence.

While deterrence theory can be used to predict the empirical results of the success of nuclear deterrence in preventing war among great powers, an assessment of its legitimacy is in order. Deterrence theory has faced criticism for assuming the rationalism of actors, which I have done here. If statesman are not rational in some sense, then choice theory falls apart, the predictions made by deterrence theory fail and its correlation to reality is merely convenient. Zagare (1990) gives the view that theorists have tended to assume of rational actors:

> In brief, theorists who subscribe to this view tend to equate rationality with omniscience. As described by Verba in an oft-cited article, a rational actor is one who makes a "cool and clear headed ends-means calculation" after considering all possible courses of action and carefully weighing the pros and cons of each of them. Obviously, such a decision requires that an actor have an accurate perception of the implications of all his options and a well-defined set of preferences concerning them. It also requires that he accurately assess the

> preferences of other relevant actors and their likely response to his tactical choices, that is, to his concessions or to his threats. In the view of the proceduralist, misperceptions or other deficiencies of human cognition and rational decision making are mutually exclusive.

This view of actors is unrealistic. Statesmen do not have access to all of the information assumed in the procedural rationalistic model of actors, therefore predicting their behavior on the basis of the assumption that they do have this requisite information will yield untrustworthy results. Zagare proposes a different rationality postulate: we only assume that actors have connected and transitive preferences and act purposively. This he calls "instrumental" rationality. To say that alternatives are "connected" is to say that an actor can compare them to analyze outcomes and transitivity implies that if an actor prefers a to b and b to c, then that actor prefers a to c.

Alternatives to the instrumental rational actor model, such as the organizational process model or the governmental politics model make the same core assumption of the rational actor model in purposive behavior, and are only mutually exclusive from this model if they maintain a different unit of analysis and make different assumptions about the goals that these units maintain, not because they make different assumptions about the nature of actors' rationality (Zagare, 1990). In the organizational process model, preferences are set on organization goals and organizations are instrumentally rational. In the governmental politics model, individuals within the government are instrumentally rational.

The rational actor model is not easily dismissed on the basis of the assumptions of instrumental rationality. Merely postulating that actors have coherent preferences does not assume anything else about them. Those preferences may be unreasonable or unethical, but the instrumental rationality model does not require them to be to make predictions. The

instrumentalist only asserts that the best way to understand an actor's behavior is by understanding their potentially subjectively defined goals (Zagare, 1990).

A key problem then is making predictions on the basis of goals which are potentially subjectively defined. The instrumentalist does not necessarily identify how preferences are determined. This is important however, because deterrence only works when actors are unsure of whether the other perceives the cost of capitulation to be higher than the cost of executing the threat. If actors are aware that the other will not execute a threat, then there is no equilibrium in the game and deterrence fails. This is the case because when information is complete, the player with the highest resolve can escalate and win the game. When two actors are unaware of the resolve of the other, brinkmanship may put them both in a scenario where the game can get out of control and ends with destruction for both (Zagare, 1990).

The rational actor model is useful in theorizing on deterrence when instrumental rationality is assumed because it serves to explain mutual deterrence but does not postulate anything exceptional about actors. In conclusion, nuclear weapons are useful in preserving the stability of the international system at least when great powers have them as they prevent major conflict between the powers. We would not necessarily be better off if nuclear weapons did not exist or if everyone disarmed their nuclear capabilities completely, because the possibility of major conflict between great powers which poses an existential threat to the relevant belligerents becomes far more poignant.

II. Minor Powers and Nuclear Weapons

Waltz (1979) argues that states are "like units." Any argument which would hold that the effects of nuclear proliferation vary depending on the sort of state that proliferates must then come into conflict with that conclusion, for if there were no important qualitative difference between states then there would be no difference in the effects of their proliferating. Sagan (1995) analyzes the organizations within states to explain why more would be worse as a matter of probability. For example, it follows from more states having nukes that there should be a higher probability that one of those states with a nuclear arsenal would not develop second-strike capabilities, and without those capabilities there is potential incentive for others to carry out a first strike and deterrence breaks down.

There is also, in more states having nuclear weapons, a higher probability that there may be an accident involving one of those nuclear weapons. These arguments apply to the great powers just as much as they do to minor powers though, and following Sagan's line of reasoning, great powers ought to disarm their nuclear arsenals. There are reasons to suppose that the consequences of proliferation vary between great powers and minor powers in virtue of their roles as such though. These differences are all that saves the claim that nuclear apartheid is justified, but it must be shown that the world is made safer when great powers maintain nuclear arsenals, and less safe when minor powers have them for reasons which will be elucidated below.

Great powers are often deterred by nuclear retaliation from pursuing goals which may or may not incur such a response from relevant actors from fear that the game they play will get out of control. This demands further explanation, because if one assumes that neither state wants

nuclear conflict, how two states arrive at such a state of affairs is not necessarily clear. Waltz would argue that because neither state wishes to start such a conflict, all states will be deterred from any action which could lead to such a conflict.

Even if one assumes such an outcome as undesirable for all actors (a generous claim to Waltzians), however, it may still come about. The prisoner's dilemma is a classic example of how even when one outcome is preferred by all actors to another, they must settle for what all perceive as worse. De Figueiredo, Weingast, Walter, & Snyder (1999) explain the Yugoslav wars with reference to the prisoner's dilemma. As neither general Serbs nor Croats wanted war, its occurrence should perplex scholars who would think that two states that would rather avoid nuclear conflict could find themselves embroiled in it. Though of course these cases are different in important ways, it is hasty to assume that states will not find themselves in situations of nuclear conflict merely because both states would prefer to avoid it.

Minor powers in virtue of their being such are more likely to see the breakdown of nuclear deterrence than great powers. To be sure, great powers can see the breakdown of nuclear deterrence as well, but are better suited to avoiding that than minor powers. Great powers are equipped to achieve their interests, not only militarily, but economically and diplomatically. Minor powers do not have the military, economic, or diplomatic power that great powers do, hence their being minor powers.

The nuclear taboo allows for great powers to pursue their goals even to the extent that they antagonize one another, but do not present existential threats to one another. Minor powers do not have such a capacity. This is important, because great powers can defend their interests without nuclear arsenals but minor powers cannot necessarily do so. Nevertheless, minor powers

have interests that they would wish to protect, and in lieu of other means of doing so, must eschew the nuclear taboo, not necessarily launching a nuclear attack, but making the threat.

Whether or not that threat is credible is of vital importance, because if it is not credible then it will not serve to deter, as the U.S. arsenal did not serve to deter Iraq from invading Kuwait (though the U.S. may not have made an explicit threat, Waltz argues that nuclear weapons provide extended deterrence which does not necessitate the explicit warning of rivals). If that threat is not credible, as it may well not be, or if rivals choose to ignore the threat as the Arab powers did in attacking Israel despite Israel's nuclear arsenal, then an escalatory game is initiated.

Vertical escalation of conflict between two nuclear powers where one has a much stronger conventional force will not involve a tit-for-tat scheme. In WWI, when the Germans first employed gas weapons, they expected the allies to do the same, for example. If India and Pakistan find themselves embroiled in conflict, Pakistan will find itself unable to match the conventional forces of India. Indeed, Pakistan continues to develop its nuclear arsenal not to match the nuclear arsenal of India, but to balance against India's conventional forces (Lavoy, 1993). This imbalance is not found between great powers. Even though Walt (1985) found a large imbalance of power between the two alliances, tit-for-tat escalation would still be the modus operandi in potential conflict. This allows for a game to be kept under control for a longer duration. The West, being the stronger of the belligerents, would understand that to fight an initially conventional war with the East would eventually constrain the options of the East and the East would find itself pushed in the direction of employing nuclear weapons.

The usage of nuclear weapons is not necessarily the end of escalation. Herman Kahn in On Escalation (1965) sets up a ladder of vertical escalation with 44 rungs on it, more than half of

which involved nuclear weapons. The likelihood of the game getting entirely out of control after nuclear weapons are employed in anger is much higher though, as nuclear deterrence has broken down. It failed to deter conflict initially and it subsequently failed to deter vertical escalation. It is easier for great powers to avoid this, because there are more rungs on the ladder of escalation for them to stop at, and more time to reverse course. Minor powers that build nuclear arsenals to balance conventional forces do not match this dynamic between states.

This paints a picture that seems to strengthen the case that deterrence would work between all powers, minor and great if they all had nuclear weapons. However, Bell (2015) writes that it is not the case that once states attain nuclear weapons that they are more restrained in their behavior. He explains that states are likely to become more aggressive, expansionist (meaning a broadening of interests), independent, bolstering, steadfast, and also willing to compromise. The willingness to compromise is a result of the fact that the costs of doing so are lower when there is the additional security provided by nuclear weapons on the field. Minor powers do not have the same conventional means to achieve their goals if they are not in line with those of stronger powers though, so they will engage in games of nuclear brinkmanship, as North Korea does (Cho & Woo, 2007). This is the only material means available to economically and militarily weaker powers in possession of nuclear weapons to coerce other states, and this is the key distinction between minor and great powers.

Here it is important to make a digression onto the importance of distinguishing between revisionist and status quo states, a distinction employed by Schweller (1993). Revisionist states seek to make a change in their position within the international system and status quo states seek to maintain the international system as it is. It is conceivable that a minor power would be status quo even though it is relatively less powerful than other states. It is also conceivable for a power

to be revisionist on some issues and status quo on others. This is the case with Israel. Israel is status quo with regard to its relationship to the United States but revisionist with regards to the status of the occupied territories. Because Israel's relationship to the United States is a comfortable arrangement for the small state, employing its nuclear arsenal as a means of coercion is not a productive means of achieving its goals.

Nuclear weapons are military means regardless of which state is in possession of them but they especially embolden small states to pursue their goals more aggressively. Great powers as individuals are in a better material circumstance when there are no nuclear weapons to factor into their calculations because they may be less restrained in their action. The costs of conventional war between great powers is large, but their great power status allows for them to pursue their interests more steadfastly than minor powers and if concern is with relative power and not absolute power, then this is to their benefit.

Once nuclear weapons are introduced, great powers must exercise restraint such as to avoid nuclear conflict or conflict which is perceived to come with the risk of escalation to it. Minor powers, by contrast are not constrained by nuclear weapons, but emboldened by them (Bell, 2015). Their nuclear military capabilities provide for some coercive capacity, but only insofar as the threat is credible. This is what leads to the nuclear brinkmanship that compromises the stability of the international system, if the minor nuclear powers see interests in revision. By virtue of the role of minor power, nuclear proliferation has a different effect on the proliferant than it has on a great power.

There is also something to be said about the fact that material resources are what sets great powers apart from minor powers. Greater access to resources enhances a state's capability to achieve internal goals. Waltz (1995) argues that minor powers, just like great powers, have an

interest in ensuring that accidents do not happen, establishing second-strike capabilities, preventing their nuclear weapons from falling into the hands of terrorists, etc. While this may be true, minor powers may not have the material capability to prevent these occurrences. Indeed it is Sagan's argument that not even great powers have the material resources available to them to prevent institutional determination of the breakdown of deterrence. Waltz' response is that because such has not yet happened, one can extrapolate and be confident that deterrence would not break down among minor powers either. This is not a reasonable conclusion to draw.

This is not an "ethnocentric" argument which Waltz would rightly condemn. The problem is not that the logic of nuclear deterrence between actors breaks down when those actors are not so materially grounded, but that the actors themselves breakdown when not so materially grounded. Without the resources available to policy makers to formalize institutions which reify a unitary actor, the reliability of the cost-benefit calculations of that state come into question. Once again one can invoke the Serbian example: it was because Milosevic feared the election of reformers that he stoked fear of war which required strong leadership (De Figueiredo et al., 1999). Milosevic acted in his individual interests and not in the interests of the state. Therefore to understand the actions of Serbia, one must assume an individual level of analysis rather than a state level one as Serbia was not a unitary actor the way academics sometimes assume states are. The argument here is not that it is sometimes in policy makers' interests to initiate nuclear conflict but that lack of resources weakens institutions which must be strong for the logic of deterrence to work.

The mechanisms by which want for resources leads to the breakdown of deterrence are enumerated by Sagan. A state must establish second-strike invulnerability or risk incentivizing a first strike against it, but without strong institutions that individuals perceive as legitimate,

organizations may pursue contrary objectives, such as amassing a larger arsenal or promoting their individual careers. If individuals find their state to be legitimate and work to preserve it because they see it as good in itself, they are more likely to do what is good for it even when it comes with certain opportunity costs to the individual. Institutions in certain cases serve to orient one's moral sense and inform their decisions. Only with reference to this fact can one understand self-sacrificial behavior on the part of individuals for their state: they perceive it as a good thing to do.

States, especially in the third world, partake in efforts to legitimate themselves, and foster an identification among their individuals with the rest of their population. An example of this is the difference between Kenya and Tanzania recorded by Miguel (2004). He shows that by means of introducing a standard language in a state-wide education system, among other strategies, Tanzania has legitimated itself in a way Kenya has not. As a result, one can speak of Tanzania as a corporate actor whereas the case against doing so with Kenya is stronger because there is greater tribal identification. Legitimacy of the state is necessary to the reification of the state as a unitary, rational actor by which the logic of deterrence theory holds.

Third world states require legitimation more urgently than great powers though (Khan, 2009). One of the means available to third world powers in their quest for legitimacy among their populations is international conflict. According to Khan (2009) an inadequate sense of "stateness" among certain third world countries leads to international conflict between them. The inadequate sense of stateness is tantamount to a breakdown of the unitary actor model of a state, and the logic of deterrence fails because its assumption of rationality is not met. Incorporating nuclear arsenals into the militaries of these states will not make a rational unitary actor out of

them; all of Waltz's arguments on how states will behave with nuclear weapons presuppose their rationality temporally prior to them attaining the weapons.

There is a potential counterpoint to be made: the Soviet state lacked legitimacy to the extent that it was dismantled bloodlessly yet there was no nuclear disaster as a result. The important point is that a state lacking legitimacy will not inculcate the motivation to do what is best for the state to persevere. What is best for the state to persevere is informed by the calculations which assume a unitary actor. It is not that when individuals do not make calculations on this basis that nuclear disaster necessarily ensues, but that certain relevant individuals' or organizations' goals are differently informed which may lead to nuclear disaster.

Sagan (1995) points out that organizations' goals and states' interests sometimes diverge, and organizations prefer more parochial goals to the state's need for second-strike invulnerability, for example. The short-term benefits outweigh the long-term consequences to the relevant organization. In the Soviet case, the state came to lack legitimacy to a significant degree after Brezhnev, and after second-strike invulnerability was achieved. One could also point out that the Soviet state was much less materially prosperous than the U.S. It is true that material resources are not necessary to legitimate the state; the Soviet state was first legitimated by ideology, and as a result, secured the material resources to be a great power. Great powers would not be great powers unless they had access to substantial material resources. Minor powers may or may not have access to such resources.

Another counterpoint worth making involves the legitimacy of the Democratic People's Republic of Korea. North Korea is a poor country but still manages to legitimate itself among a critical mass of its population. There is an important distinction to be made between officials and the rest of the population. Where the regime must legitimate itself to the population to maintain

its monopoly of force, it serves well enough to coerce officials. It is officials that are most relevant because they occupy positions in organizations responsible for maintaining the nuclear arsenal.

Wendt (1999) specifies three degrees of internalization. In the first degree, an actor complies because they are forced to do so. In the second degree, the actor complies because they perceive it as in their interest to do so. In the third degree, the actor complies because they think it is the right thing to do. Whereas a critical mass of the population has internalized the will of the regime to the third degree, officials seem to have only done so to the first or second. Indeed in 2013 Kim Jong Un's own uncle was condemned to execution for treason.

The means of coercion are not always reliable and necessary surveillance is expensive if not impossible to carry out effectively. This allows individuals to pursue individual interests insofar as they can get away with it, which is not merely a local concern when their responsibilities are integral to the maintenance of nuclear weapons. North Korea having nuclear weapons for this reason is problematic, but the nuclear state to which they are the most antagonistic, the United States, is unlikely to carry out a first strike. Whereas the fears associated with organizations raised by Sagan are in large part that organizations will pursue goals that incentivize another state to carry out a first strike to neutralize the threat, the U.S. does not have an interest in doing so because of the drastic one-sidedness of the balance of power and mutual nuclear deterrence as well as American fear of escalation into a conflict with the PRC.

Waltz (1995) raises the issue of accidents. He writes, "We do not have to wonder if they will take good care of their weapons. They have every incentive to do so. They will not want to risk retaliation because one or more of their warheads accidentally struck another country" (pp. 75). As Sagan points out though, Waltz assumes a rationalist model of state action. He continues

that if there are political concerns within the organizations responsible for keeping the nuclear weapons in good care, their ability to do so may be compromised. The probability that this should occur as the number of nuclear states increases invariably increases as well. Even though all states, assuming rationality, have an interest in preventing accidents, this is not enough to make certain that they will not occur. An example comes from Phillips, (2001), "There was a coincidence of two satellites on a radar screen while a practice tape was being played. The picture was misinterpreted as missiles on their trajectory from Cuba. The predicted flight time was too short for retaliatory action to be taken before the error became obvious because no missiles had arrived." The U.S. had an interest in preventing misinterpretations of nuclear weapons being launched toward it, however this occurrence was not prevented. It was only because individuals decided not to launch a retaliatory strike on the basis of what they believed to be a launching of nuclear weapons against their country that crisis did not become catastrophe. The more states with nuclear arsenals, the more likely it is that one of them will see an accident.

One final matter worth addressing is the defense of the rational actor model of state behavior in the first section, but the criticizing of Waltz's arguments for assuming it in this one. It was written that the organizational process model and governmental politics model are only inconsistent insofar as they assume a different level of analysis but make the same assumptions about actors' rationality. The rational actor which serves as the unit of analysis in deterrence theory is the state, but this is not always appropriate. It is only appropriate when states are sufficiently unitary, and I have argued here that minor powers are not often enough so. Great powers overwhelmingly tend to be unitary actors though, so this unit is appropriate in assessing whether nuclear deterrence will hold between them.

In conclusion, more would be worse. The presuppositions of rationality made by Waltz (1995) are illegitimate and they do not speak to the ability of states to prevent accidents, only to their interests as states to prevent them. The role of minor powers as minor powers makes their having nuclear weapons more dangerous than if great powers were to have them. For these reasons, while nuclear weapons serve to stabilize the international system when great powers have them, they serve to destabilize the system when minor powers proliferate.

III. The Importance of the Great Power Role

Waltz (1995) argues that the consequences of a state having nuclear weapons are regardless of which state it is. The effects of proliferation are universally identical. It is against his grain to argue that the effects of proliferation vary depending on particular variables. I argue that nuclear weapons serve to stabilize when in the hands of great powers, but destabilize in the hands of minor powers. This conclusion rests on a series of premises that will each in turn be defended. Minor powers seek alliance with great powers and vice versa, though their reasons for allying differ. Great powers can prevent destabilizing revisionism by minor powers via conventional deterrence, but great power revisionism cannot be prevented by conventional deterrence. Therefore: great power conflicts pull minor powers in because they sought alliance with a great power, but minor power conflict does not pull anyone in should it occur and is avoidable when a minor power is allied to a great power (Weede, 1983).

As nuclear deterrence successfully prevents a great power from pursuing revisionism even if they otherwise would, it is unique in its stabilizing force, but for only great powers to have them is sufficient. A counterpoint worth addressing is the nonalignment of states during the

Cold War; as if small states may simply choose this path then they are not pulled into war even if great powers come into conflict.

It seems obvious that great powers care about having allies in minor powers. The Cold War yields plenty of examples not only of the superpowers seeking such alliances, but striving to maintain them. A colorful example comes in 1956 during the Hungarian crisis; Khrushchev had felt obliged to consult with Tito, the Yugoslav leader, before acting in Hungary. Khrushchev and Malenkov made a dangerous flight in a small plane through poor weather conditions and a subsequent sickening voyage through rough seas because Tito had been vacationing on an Island in the Adriatic and would not be bothered to come to Belgrade or Moscow to meet Khrushchev (Gaddis, 2006). It is not so obvious why a superpower such as the Soviet Union would vie so strongly for the support of a relatively minor power like Yugoslavia. However, occurrences such as this are rampant. According to Walt (1989) "More than anything else, the cold war between the United States and Soviet Union has been a competition for allies." The Soviet Union was so jealous for allies that, "the USSR 'enjoys' the opportunity to prop up states like Angola, Ethiopia, South Yemen and Vietnam. Much of Eastern Europe is an economic liability, and its loyalty to Moscow has always been questionable" (Walt, 1989). Of course, the Soviet Union's foreign policy does not prove a necessity in international relations theory, but it does demand explanation.

Even when it is the case that a minor power is not industrialized or wealthy, they have certain capabilities which are useful to great powers which motivate the formation of alliance. Natural resources in the territory of a minor power, for one thing, make an alliance fruitful to a great power as they will then have special access to those resources and effectively deny access to rivals. Minor powers may also be of significant strategic worth to a great power if they are

geographically positioned where they may be useful to a great power. The Soviet Union feared a capitalist encirclement because it would have put them at a strategic disadvantage if their enemies could launch troops or weapons from positions near the Soviet Union. Ballistic missiles in Turkey presented a major dilemma to Soviet leaders, for example. Further, minor powers may furnish additional military capabilities in troops and military bases to major powers. When quantifying the balance of power, one must take into account the population of an entire alliance, not just the great power at the helm. Minor powers are thus strategically useful to great powers and great powers pursue alliances with them even when they are not so militarily powerful or economically prosperous.

There are other reasons why a great power may want a minor power as an ally beyond those that are directly strategically useful. For the reasons already given, one may not understand why the Soviet Union propped up Angola, as Angola was not economically or militarily significant, geographically useful and served as a net loss of resources to the Soviet Union. The Soviet Union sent resources and propaganda to Angola, broadly, for the sake of legitimating Marxism-Leninism further. The Soviet Union had a perceived interest in legitimating their ideology abroad to make itself more attractive to potential allies.

Whether or not states choose allies on the basis of ideological solidarity is up for dispute, though Walt (1985), finds that this is rarely a determining factor. The United States supported Israel for a similar reason against its Arab adversaries. When Israel continued emerging victorious as a U.S. ally, the attractiveness of an alliance with the U.S. is enhanced as onlooking states see it as a viable means of securing themselves. Mearsheimer and Walt (2008, pp. 51) write “By inflicting humiliating defeats on Soviet Clients like Egypt and Syria in the 1967 Six-Day War and the 1973 October War, Israel also damaged Moscow’s reputation as an ally while

enhancing U.S. prestige." While the U.S. may have other interests in an alliance with Israel, this is certainly one of the most poignant and reveals just how important having numerous allies are to great powers.

Conversely, minor powers need major powers as allies. This for the enhanced security that comes with such a relationship. There may be other reasons for minor powers ally with major powers, but what is of the most concern is what a state's most fundamental interests will have them do. Liberals find economic interests in a small state allying with a large one (Bailes and Thorallson, 2017). However, the interests of security will trump economic ones (Mearsheimer, 1994). Therefore, when broadly predicting if states will seek alliances with great powers or not, leaving aside with which great power they will ally and for what reasons, it suffices to show that it is in the security interests of a state to do so. Bailes and Thorallson (2017) write,

> The most obvious way in which small states are vulnerable is in their lack of hard power. With smaller populations, less absolute wealth and less territory, small states lack the self-sufficiency, resources and strategic depth needed to defend themselves, including the maintenance of adequate armed forces.

That is to say, small states are insecure without allies. Their security depends on their ability to secure an alliance with another state, and great powers are the most able (depending on certain factors such as geographic proximity) to provide the security that minor powers need.

Benson (2011) finds that minor powers are unlikely to be attacked if they have an alliance with a major power. The U.S. was able to guarantee the security of Taiwan which was faced with a much more powerful PRC, the security of South Korea, and so on. These states

were so confident in the ability and willingness of the U.S. to provide them security that they gave up their own nuclear programs (Betts, 1993).

Security for minor powers by alliances serves to parry another point that could be made by invoking the 2003 invasion of Iraq. Iraq being a minor power could not possibly defend itself from the U.S. and its allies. In hindsight, such an invasion was irrational on the part of the western powers, so it does not suffice to say that a state is secure on the basis that it would be irrational to attack it. Smaller states would be secure from existential threats if they possessed nuclear arsenals, however they are also secure when involved in an alliance with a great power (Weede, 1983). Therefore, the need for allies by small powers is reinforced by the 2003 invasion, and the argument is strengthened because of it.

"Small nations do not threaten peace" (Spitzer, 1945). This statement is believed on account of the individual weakness of small nations. What must be shown for this to be accepted is that, unlike major powers, minor powers do not threaten to drag other nations into war unless they are willing. Major powers do stand to bring minor powers into wars that they otherwise would not engage in though. The nature of escalation is unpredictable. When wars begin, they tend to unfold in ways that policy makers did not anticipate and this has been true of "the Revolutionary War, the War of 1812, the U.S. Civil War, the occupation of the Philippines, both World Wars, the wars in Korea and Vietnam, the interventions in Lebanon in 1983 and in Somalia in the early 1990s, and the 2003 invasion of Iraq." (Morgan, Mueller, Medeiros, Pollpeter, and Cliff, 2008). It need not be the case that escalation would be horizontal in every great power conflict to make the argument. Sometimes horizontal escalation is not strategically

prudent on one or both sides of a conflict. Because escalation unfolds unpredictably though, minor powers are insecure due to the possibility of it being horizontal.

Morgan et al. (2008) write that horizontal escalation "refers to expanding the geographic scope of a conflict (for example, by conducting operations into or through territory previously treated as neutral by the combatants)." To be sure, horizontal escalation does not necessarily mean bringing previously neutral states into a conflict, it could simply be dropping conventional bombs closer to strategic targets than before, as with Operation Rolling Thunder. In 1982, the Reagan administration used threats of horizontal escalation to deter Soviet Expansionism rather than relying solely on vertical escalation, that is, threatening to escalate the intensity of conflict, eventually to the usage of nuclear weapons. During the Carter years, the U.S. enjoyed significant conventional advantage over Soviet power in the Far East and Cuba (Morgan et al. 2008) and threatened horizontal escalation in an effort to prevent Soviet aggression against Iran. By threatening to attack these regions and escalate horizontally, the cost-benefit calculations of the Soviet Union when they considered expansionism were altered. Importantly though, Cuba would be insecure against the U.S. if not for an alliance with the Soviet Union, but risks conflict with the U.S. over actions taken by the Soviets which are otherwise unrelated to Cuba. Cuba is therefore dragged into a conflict it would not find itself in, given its choice.

Horizontal escalation is not always the most prudent means of carrying out conflict, but it does not need to be for the possibility to be sufficiently threatening to the security of minor powers. Fitzsimmons (2019) finds that threats of horizontal escalation to Cuba in response to potential Soviet expansion into Iran were not significant enough to affect Soviet incentives in Iran and more significant options of horizontal escalation like a Chinese attack on the U.S.S.R. itself were not feasible. Therefore as a deterrent, these threats were not sufficient alone.

It has not been a necessary premise to the argument that alliances bring member states into a conflict when one should erupt between one member and a nonmember. Different forms of alliances respond differently to conflict and not all are strictly defensive in nature. Benson (2011) details a typology of different forms of alliances depending on their conditionality variable and deterrent versus compellent purpose and finds that unconditional compellent alliances do increase the probability of a state initiating conflict because they will receive military aid from their allies. However minor powers involved in a conditional deterrent alliance are less likely to be attacked than they would be if they were not involved in such an alliance. This all serves the point that the threat of alliances meeting their obligations are credible, and conflicts cannot predictably isolate particular members of an alliance i.e. a minor power cannot be attacked with confidence that its allies will not come to its assistance. Therefore both minor and major powers have reason to form alliances with one another and when conflict breaks out it draws alliances into it, but only great powers have the authority to prevent the conflict because minor powers with a great power ally are not susceptible to attack (Benson, 2011).

Conventional deterrence is effective when utilized by great powers against minor powers. “Modern states as a rule do not launch wars against each other unless they see a path to achieving a quick and relatively inexpensive victory” (Mueller, 2018). This is a conclusion reached by Mearsheimer in Conventional Deterrence. Minor powers facing great powers cannot hope to achieve quick and inexpensive victory, so they will typically be effectively deterred. Whether or not they are actually deterred depends on the credibility of the threat of a great power to intervene. Iraq did not perceive threats of U.S. intervention as credible before invading Kuwait, but if it had then it would not have done so. The balance of power between great powers

and minor powers when great powers are interested precludes war making of minor powers. Great powers are interested when their allies are the potential victim of a revisionist power. International stability can be maintained and minor powers can be secure even if they do not have nuclear arsenals.

Conventional deterrence alone is not sufficient to prevent war between great powers though. Recalling that one of the reasons why nuclear deterrence may succeed in preventing conflict where conventional deterrence would fail is that outcomes of conventional battles and wars are contestable before they are fought, great powers may engage in cost-benefit calculations which lead them to make war. Revisionist great powers stand to benefit greatly from victory in conflict with other great powers. Germany twice attempted hegemonic overthrow and provided the legitimate probability that it may succeed. The long term benefits of success certainly could have justified the rationality of making war. Nuclear weapons are necessary to augment the deterrence of great powers along with conventional forces. As Solomon (2013) writes, "Successful deterrence of great-power conventional war requires mutually reinforcing conventional and nuclear deterrence to cover the spectrum of conceivable contingencies." This is the case because only nuclear weapons necessitate that neither side of great power conflict emerge in a better geostrategic or domestic situation than they occupied before the conflict.

Solomon (2013) argues that because opponents' risk aversion varies over time and respond to ever-changing domestic and international political environments, conventional deterrence between great powers is not sufficient to reliably prevent great power conflict. International stability cannot be maintained if great powers do not have nuclear weapons (or perhaps other forms of WMDs) to use as deterrents.

To summarize the argument made in this section thus far: both minor powers and great powers have incentives to form alliances with one another; conventional deterrence works when used by great powers against minor powers but fails when used between great powers, therefore to prevent great power conflict, nuclear arsenals are necessary; minor powers can be secure without nuclear weapons but great powers cannot; when great powers come into conflict, minor powers are implicated. Taking the Cuban example, Cuba could not be secure against the U.S. by conventional deterrence as the conventional forces of the U.S. were superior and more numerous that Cuban forces. Cuba secured itself by allying with the Soviet Union, but if the U.S. and the Soviet Union were to come into conflict, Cuba would have been implicated as a result. Because conventional deterrence between the U.S. and the Soviet Union would have been unreliable, it was in Cuba's interests for both superpowers to maintain nuclear arsenals such as to deter one another from initiating conflict and thus maintain Cuban security.

To preempt a counterpoint which would draw on historical experience of nonalignment during the Cold War, it suffices to show that states will only pursue this route when it does not compromise their security and that their security is compromised when great powers come into conflict or great powers choose to war with them. Mates (1970) points out that nonaligned states were often the battleground for the proxy wars between the U.S. and Soviet Union. However, if great powers did not have nuclear weapons and went to war, nonaligned countries would not be pulled into it in the same way that allies of the great powers would be. So why is this not a preferable alternative to great powers having nuclear bombs and deterring war that would pull the minor powers in?

Minor powers may be threatened by great powers. They are not secure when every state maintains a nuclear arsenal, and their conventional forces are not strong enough to match the

conventional forces of the great powers. In this case, the contestability of the outcome of conventional war is nil, save for special cases like Vietnam. The 2003 invasion of Iraq shows the value of alignment to minor powers. Had Iraq been an ally of a great power, the U.S. almost certainly would not have invaded (Weede, 1983). This is not to confuse Cold War nonalignment with neutralism though, as there is invariably something more to nonalignment, observable in the defection of Indonesia from the ranks of nonalignment but not moving into either bloc.

As small states are not self-sufficient, they require some sort of relationship with other states to ensure their viability. Nonalignment provided a relationship among nonaligned states which ostensibly served this purpose. As there was no pole at the helm of the nonaligned countries though, and they did not pose existential threats to the superpowers, they became a battleground. States are free to choose nonalignment, and evidently will do so in certain cases, but them doing so does not compromise the above argument. The security of minor powers being the matter currently considered, they are better off when the great powers have nuclear weapons because they then can join either bloc to ensure their security with confidence that great power conflict will be successfully deterred. The option to choose otherwise does not render them insecure.

IV. What is Stability

That minor powers are better off as a result of exclusively superpower nuclear proliferation is counter-intuitive, not least because of what has been dubbed the "stability-instability paradox." Jervis (1985) describes the paradox: "to the extent that the military balance is stable at the level of all-out nuclear war, it will become less stable at lower levels of violence." The concern to minor powers is that nuclear deterrence may rule out traditional great power, direct conflict, but encourages lower-level conflict between nuclear great powers which still implicates minor powers. One should hesitate to say, for instance, that Vietnam was better off as a result of the nuclear deterrence practiced by the superpowers because (arguably) as a result of that deterrence the United States and Soviet Union fought a proxy war in Vietnam in which millions of Vietnamese people died. Vietnam may or may not have been implicated in a direct, conventional conflict between the United States and Soviet Union, but even if it were it almost certainly would not have been the theater of that conflict and would not have faced the destruction that it did. The consequence of this conjecture is that the security of minor powers seems unguaranteed unless they too maintain nuclear arsenals or capable conventional forces.

The purpose of this section is to provide a piece of the normative justification for nuclear apartheid. The stability-instability paradox provides a useful backdrop and counterpoint to the position that nuclear apartheid is justified on normative grounds.

There are several relevant matters to attend to here:

1.) What does it mean for a state to be better off? It is not obvious that the unit of analysis on this question ought to be the state which supervenes on the people rather than the individuals themselves. While the state of Vietnam may be better off with a nuclear arsenal, the risks posed

to the individuals by widespread nuclear proliferation are undesirable. Further, while the state of South Vietnam stood a better chance of survival with the backing of the United States, this was to the ultimate detriment of the Vietnamese people, so there is seeming tension between the interests of the state as an institution and the individuals under it.

2.) To what extent to material forces determine outcomes? Weede (1983) writes of the risks involved when states take certain actions, but presupposes the extent to which states are the authors of their fates. To be sure, certain material conditions constrain possible outcomes more than others, and indeed are sometimes determinative with certain givens already in place. Normative analysis of the effects on stability that nuclear weapons stand to pose requires at least a crude depiction of the important differences in the abilities of states to be the arbiter of their own destinies as a result of the different material conditions they find themselves in.

3.) What is stability? A definition of stability is required to express an ideal of the international system, but care must be taken to avoid simply defining away the stability-instability paradox.

1.) What does it mean for a state to be better off?

The trivial response would be that one should analyze the wellbeing of the state as an institution to assess its wellbeing, but on normative grounds the state as a formal organizational institution seems an illogical place to put the relevant moral weight. The state as an institution only exists to serve the interests of the people it supervenes on. Vietnam exists for the Vietnamese, for instance. It is true, however, that there cannot be Vietnamese people without Vietnam for the people and the state are mutually constitutive (Wendt, 1999). The individuals therefore identify with the state and their wellbeing is in part determined by the wellbeing of the state in more than just that their interests are served by it.

Individuals are generally worse off in multiple distinct ways when their state does poorly in some regard. Firstly, the state is less able to serve the interests of individuals. This is a very basic understanding of what it means to be worse off. The state is less capable of enforcing laws, pursuing salient interests abroad, etc. and individuals may find their material circumstances as less desirable than if the state were not in a relatively negative position. The second way individuals are worse off when their state does poorly is that they identify with their state so in virtue of their state doing poorly, they too do poorly. This must be understood in the context of a (not necessarily radical) holistic scheme of agency. Wendt (1999) writes, "The claim that some individual predicates imply irreducible social ones remains a key philosophical objection to individualism." The upshot is that it is not practical to separate supervenient states from the individuals that compose them; they are mutually constitutive.

What exactly it means that states and individuals are somewhat mutually constitutive is that the content of actors' ideas presuppose the world, including social life and the state (Wendt, 1999). Wendt continues that social scientists explain behavior of individuals not just by reference to their beliefs and their desires (which is the individual), but also to their irreducible environments. While individuals are part of the state, the state is also part of the individuals. While the state may be conceived of as an objective fact that faces individuals, it is one composed of Others and individuals understand themselves with reference to Others (Wendt, 1999). For example, a professor is not a professor if he does not have students and an American is not an American without an America. While the formal institutions of America may exist even if most living under them do not identify as Americans rather than Ohioans, for example, the constitutive effects between the individuals and the state are lost if this is the case.

Returning to a previous point then, there is overlap between the interests of the state and the interests of individuals. Certainly, the interests of all the individuals which serve as the constituents of a state are not necessarily identical. If they were, then there would not be rivaling interest groups in domestic politics. However, inasmuch as those individuals are constituted by the state and the state by all of those individuals, they are identical. Between individuals and the state is the most perfect location to analyze the wellbeing of a state. What exactly does this mean? One should assess the wellbeing of a state by understanding the overlap of interests between individuals and the state, which are individuals' interests inasmuch as they are components of a particular state.

There is a relevant distinction between individuals' interests as individuals and their interests as citizens. For example, an individual has a crude material interest in successfully robbing a bank and getting away with it, but an individual has an interest, inasmuch as they are part of a political community, in there being no bank robberies at all. This is so because as far as an individual's interests are informed by their being part of that community, they are identical to every other member of the community's interests because they are part of the same community. And it is in all of their interests to have functional banks, therefore it is contrary to their interests that individuals should be robbing the banks.

The distinction between individual-as-citizen interests and state interests is equally important. Gaddis (2006) writes of western states' interests in maintaining power over their constituencies and their seeming to let those interests go for the sake of encouraging their populaces to pursue higher education, thus equipping individuals with the critical thinking skills necessary to hold power accountable. There is more than one component to a state, there is the populace, without which there can be no state, but also the internal organizational structure of the

state as an institution (Wendt, 1999). The organizational structure of the state may have interests apart from and contrary to those of individuals-as-citizens, as Gaddis shows.

Therefore, it is not individuals' interests nor strictly states' that one ought to look to in order to assess the wellbeing of a state, but the overlap between the interests of individuals and states, or individuals-as-citizens interests. These interests are the best place to put normative weight because they capture what could be called the "real" interests of a state by emphasizing the overlap in interests of the organizational structure and the general population, and encompassing long-term interests as well as short-term ones. Once these interests are identified, they can be compared to the world apart from the state to see if the state is doing well.

Individual-as-citizen interests can be identified in this way: assuming the political community exists to serve a purpose, that basic purpose informs individual-as-citizen interests. The state may exist to reduce uncertainty about the behavior of other individuals and therefore facilitate cooperation, enforce property laws, or to provide security against other groups, but all of these things require the perseverance of the political community, but not necessarily the state as such. A tyrant who does not adequately serve as government may be justifiably replaced while the political community remains intact even though philosophical questions about the continuity of the state abound.

The relevance to nuclear apartheid is that individuals-as-citizens have an interest in the continued perseverance of their state which is better guaranteed by nuclear apartheid than widespread nuclear proliferation or complete nuclear disarmament. They have this interest even though their military options as a state are somewhat subverted by the need to foster positive relationships with other states which is against the strictly state interests, assuming more numerous possible decisions are preferable to fewer.

2.) To what extent to material forces determine outcomes?

Nuclear bombs are material rather than ideational. The matter of whether introduction of them into the system and their distribution holds numerous possible outcomes or one determined tendency toward some outcome is the question to be taken up. Rauchhaus (2009) argues that conflict actually is more prevalent at lower levels of escalation as a result of the fear inculcated in the superpowers of direct confrontation subsequent to nuclear proliferation. It would be a caricature of his argument to say that he maintains that particular conflicts between the superpowers become necessary, which is a bolder conclusion than what he comes to. Rauchhaus writes in his conclusion that "at lower levels of escalation, nuclear symmetry does not appear to have a pacifying effect. Worse yet, nuclear asymmetry is generally associated with a higher chance of crises." The emphasis on a causal relationship delineated between material nukes and this particular relational phenomena between states is something that can be taken issue with. Liberals, institutionalists, and constructivists would find that there are means available to states of the international system that mitigate negative consequences of material forces like distribution of power.

Different material conditions yield different results. Obviously nuclear weapons are a different sort of material condition than conventional arms and therefore their consequences are unique to those of conventional arms buildup. One of the consequences of nuclear arsenals is enhanced predictability of the actions of states which have them or are implicated by them because the outcome of nuclear conflict is unambiguous and undesirable for all parties involved whereas this is not the case for conventional arms. It is the unpredictability of escalation that

yields successful deterrence but there is still predictability in that states will prefer perseverance to annihilation given the choice.

States fear that unpredictable escalation takes their choice away and will therefore avoid embarking on a game of escalation unless they are confident that they are of higher resolve than others, which explains nuclear brinkmanship and the risks involved in universal proliferation. Great powers unambiguously prefer not to partake in games of escalation with other nuclear great powers because the dynamic between great powers and between great powers and minor powers is different. The interests of great powers are weightier than those of minor powers. Sweijs, Oosterveld, Knowles, and Schellekens (2014) write that great powers are "disproportionately engaged in alliances and wars, and their diplomatic weight is often cemented by their strong role in international institutions and forums." The weightiness of their interests is probably impossible to quantify, and the perception of the weightiness of their interests is arguably more important to predicting their behavior. As a result, great powers are perpetually and perceptively unsure of one another's resolve relative to their own but can be confident that other great powers will defend their interests resolutely.

A relevant counterexample is in the 1991 Gulf War. One would expect that if the perceived weightiness of the interests of great powers would lead other states to assume them resolute in defending them that Iraq would have taken U.S. warnings seriously rather than assuming not. Iraq assumed that this particular interest of the U.S. was not perceived as weighty enough to justify the loss of U.S. lives in order to defend it. This is likely because, as earlier stated, Iraq as less than a great power does not pose the same threat to the U.S. that rival great powers do in similar actions. The Soviet invasion of Afghanistan marked the end of detenté because Soviet expansionism is threatening to the U.S. Iraqi expansionism is not similarly

threatening because the distribution of power between the U.S. and Iraq is much more disparate than between the U.S. and U.S.S.R. There was therefore ambiguity on U.S. commitment to this interest which informed Iraq's decision-making. There is not similar ambiguity between great powers, as they predict that rivals will be resolute; they are only unsure of the degree of resoluteness, making nuclear brinkmanship a risky endeavor.

The enhanced relevant predictability of the behavior between great powers introduced with material nuclear forces makes possible cooperation between the great powers that otherwise may fall by the wayside to security dilemmas. As a material force, nuclear weapons act as constraints on great powers, demarcating a limit on what they may use force to achieve without risking annihilation. Constructivists may see this as the prohibition on the construction on a particular culture of anarchy. The question still stands, do nuclear weapons only prohibit certain actions, or do they determine which substantive actions great powers will take? The stability-instability paradox is only salient if material conditions determine which actions great powers will take, from a normative perspective. This is so because if there are means available to prevent the logic of the paradox, then the escape from great power conflict all but guaranteed by nuclear weapons potentially outweighs it. It could be said that great powers should have nuclear weapons, minor powers should not, if X international institution could be put in place to prevent conflict at lower levels of intensity.

There is no reason to assume that great powers would be interested in implementing such institutions for the sake of minor powers unless it can be said that great powers will act in the interest of others and against their own, as it is potentially in the interests of great powers to take advantage of minor powers. If one assumes that states have objective, realist-style interests that they are conditioned to pursue then these conditions are unlikely to yield the institutions (such as

treaties between great powers to outlaw relevant proxy wars which are normatively worth avoiding) necessary to avoid the stability-instability paradox. Wendt (1999) writes, however, that social identity theory explains how individuals put their narrow self-interest aside in favor of collective interests and argues that states not only can do similarly but already have achieved this. If one takes this conclusion to be legitimate, then the criticism that material forces determine that great powers will act against the interest of minor powers for the sake of their own self-interest falls away because it is shown that states have transcended, at least to some extent, a realist nature, which makes possible normatively preferable alternatives in international institutions paired with nuclear apartheid to either universal nonproliferation or universal proliferation.

There is another important consideration to be made. Previous sections have employed material explanations for certain phenomena of international relations, including the importance of the great power role and using game theory, presupposing material interests and assuming states will pursue them rationally. If states can transcend a realist nature, the implication is that while they may act as realists, they may also act otherwise and material forces do not seem to determine how states will behave. The usefulness of material forces as explanatory is called into question.

Wendt (1999) identifies three cultures of anarchy that may characterize the international system. What he refers to as the Hobbesian culture is marked by the tendency of states to see one another as enemies and do not recognize the right of one another to exist as free subjects. He writes, “violence between enemies has no internal limits; whatever limits exist will be due solely to inadequate capabilities (a balance of power or exhaustion) or the presence of an external constraint (Leviathan)” (Wendt, 1999). Therefore, in a Hobbesian culture, the culture wherein

shared ideas are least likely to form and states are least likely to perceive a stake in them, material forces are useful predictors of state behavior, as ideas are of little value except insofar as they provide a means of achieving a different sort of culture of anarchy.

Conflict between states sees important overlap in the causal forces of ideas as well as material forces. Undeniably, material forces are relevant to the outcome of armed combat. However ideational forces such as treaties are relevant to altering state behavior as well. The Peace of Westphalia was arrived at for the purpose of preventing conflict over the internal affairs of other states and as an ideational force served to prevent such conflict (Rowen, 1961). As a result of the overlap of material and ideational causation, making predictions about what will happen is almost impossible as one needs to predict which ideas will hold and how they will relate to material forces. One can make an argument on the basis of an assumption that, granting X, Y follows. The Hobbesian culture of anarchy sees the smallest presence of ideational causation, so granting this, one may extrapolate assuming only material forces with causal implications. The Hobbesian culture has been of the greatest concern because assuming this culture, the wellbeing of states is most threatened. By applying analysis of IR assuming such a culture allows one to make their argument on how best to avoid an identified worst case scenario (in this case, great power conflict). If a Lockean or Kantian culture of anarchy defines the international system, then the issues of how to mitigate the consequences of great power conflict are less important because they are easier to avoid; shared ideas where states perceive an interest in the avoidance of annihilation provide a way out.

3.) What is stability?

As this is the normative portion of the argument, stability will be defined in the most normatively useful way. As a matter of empirics, "stability" could be defined any number of ways and argument about which definition is best would be a waste of time. Empirically the term would refer to some objective circumstance, and the term would only serve to tie itself onto that condition. Normatively, the term serves to stand for an ideal. It informs what is preferable: widespread proliferation, nonproliferation or nuclear apartheid. What stability ought to be defined as can be informed by what the international system ought to look like as much as colloquially, stability would be thought to apply. For example, it may be argued that there ought to be a world state and this is the ideal of world politics, but this goes beyond the bounds of what stability would typically refer to. In short, world orders or particular schemes are more specific than what is necessary to define stability.

The matter is further complicated in that stability could be thought to be relative. The Cold War was relatively stable to World War Two by every conceivable definition, but the stability-instability paradox would hold that it was not an objectively stable period, otherwise there is no paradox to speak of. For this argument, stability will be thought of in absolute terms for the sake of preserving the moral weight of the argument. If it were true that nuclear apartheid necessarily leads to violation of juridical equality of small states, that must be understood as normatively inferior to it not doing so in absolute terms. If stability is defined in relative terms, then the significance to this argument fades as one could always conceive of a worse case. Nuclear apartheid may lead to violation of juridical equality of small states, but relative to nuclear war that is preferable therefore it is not wrong. This is not useful for coming to a normative conclusion on whether or not nuclear apartheid is justified.

A useful working definition of stability in the international system would be "a condition wherein states generally maintain the ability to choose to not go to war." There may be concern that this condition is particular to individual states and not characteristic of a system of states. In 1939, it seems that Nazi Germany could have chosen not to go to war but after Hitler invaded Poland, Poland had no choice. Even prior to the German invasion, Poland could not choose whether Germany invaded, therefore ultimately could not choose war or peace. Therefore it could be said that Germany occupied a stable system but Poland did not, but both states occupy just one relevant system, otherwise their interaction would be precluded.

To resolve this apparent paradox, one needs to assert the background conditions of the international system at the time. The Nazi desire for lebensraum and a thousand-year Reich in the center of Europe should have confronted the western democracies immediately as unacceptable and they ought not to have appeased Hitler as far as they did at Munich; this is uncontroversial. It cannot be said that there was a Hobbesian (war of all against all) culture of anarchy because cultures are shared ideas and the western democracies did not perceive war to be imminent prior to 1939. German intentions made war imminent regardless of the perceptions of the British and French, and not even a security guarantee by the democratic great powers could prevent Germany from invading Poland. Given Nazi ideology pushing Germany to act as it did in 1939, domestic forces in Germany seem to have destabilized the system. This is not to say that the system necessarily was unstable following the Great War; contingencies, such as the Great Depression which gave Hitler an opportunity to rally support (Lynch, 2009), certainly played a role in destabilizing the system. There is then a point in time when the system went from stable to unstable, which is when Nazi ideology put Germany on track to make war.

Contrary to Waltzian theory, it is not only downward causation which stabilizes or destabilizes the system but also the domestic politics of some states.

This definition is useful because it captures constraints on state's actions. When states are faced with a lack of choice in going to war they are constrained. The cause of the system being unstable may be the domestic politics of one of the great powers as it was in the case of Nazi Germany (which is an example of upward causation). The susceptibility of systemic alteration by the domestic politics of a single state indicates potential instability, though not necessarily instability. Nuclear apartheid introduces stability in that great powers are deterred from warring with one another, minor powers engage in alliances with great powers which serve as extended deterrence measures, and no state must go to war should that state not choose to.

Conclusion: Looking Forward

There may be comfort is arguing that widespread proliferation is not something to be worried about because nuclear weapons are difficult and expensive to produce and maintain. Going forward they will become more accessible to more states. Brito and Intriligator (1993) argue that the supply of nuclear technology has increased with the fall of the Soviet Union. Though their predictions of the progress of proliferation were off the mark (they predicted many more states to have nuclear weapons than currently do at this point), the easier access to nuclear weapons releases some constraints on potential proliferators. Those states who would have had nuclear weapons had they had the resources to construct them are now more likely to attain them.

Measures taken by great powers to prevent proliferation have been successful in the cases of Taiwan, South Korea and South Africa even though these states had the resources to produce

nuclear weapons. This paper does not serve to demarcate strategies to regulate proliferation, but to argue that those strategies most successful should be employed and great powers should maintain their arsenals. Going forward, these efforts by the international community may need to be more pressing as more minor powers maintain absolute power growth and see it as in their interest and capability to obtain nuclear weapons.

An issue with the notion that nuclear proliferation provides stability is that it potentially only does so at a moment. Great powers do not remain great powers forever, though the status tends to persist. Old powers fall as new ones rise, and the transition of one set of great powers to another could prove destabilizing. One would not expect falling powers to give up their nuclear weapons, but would expect for rising powers to pursue them. Indeed, one should want rising powers to pursue nuclear weapons if the argument previously made is accepted. The result is more widespread proliferation which is less stable than the nuclear apartheid.

The presence of nuclear weapons in the hands of great powers only will provide the impetus for a productive change in the culture of anarchy. Whereas the system used to be consistently moving between Hobbesian and Lockean cultures of anarchy, the Hobbesian is precluded by nuclear apartheid. As a result, states are freer to trust one another and the possibility of a Kantian culture is more real. If a Kantian culture is achieved, then matters of instability as a result of shifts in the balance of power are no longer problematic.

Another line which soothes the issue is the shift in strategy among potential great powers from looking to amass empires to looking to be dominant economic powers. Schweller (1998) wrote that the 21st century would be one of competition between the U.S., Japan and Germany, but that Japan and Germany were not interested in acquiring military power to match their economic power. Their economic power grows, but their military power remains such that there

are not polar powers. He writes, “States cannot be said to be polar powers when they have only some of the capabilities required for such exhaled status.” As Germany and Japan are rising economic powers, they are not rising military powers and only when a state is a military power does it stand to threaten the stability of the international system.

Nuclear apartheid serves as a catalyst to bring a normatively preferable evolution in the culture of the international system. It is likely that in the long-term future, per capita economic power will equalize between states and the differences between great powers and minor powers will be a matter of historical contingency rather than balance of power. The international system’s culture of anarchy being Kantian mitigates problems that would otherwise abound, though.

Looking forward, assuming a Hobbesian culture of anarchy as has been done throughout the paper yields predictions of instability. Assuming even a Lockean culture, which is more warranted given that nuclear apartheid makes Hobbesian cultures impossible, will lead to conclusions of peaceful competition which Schweller sees as probable. Assuming a Kantian culture, which has been argued is the most likely result of nuclear apartheid, will lead to even more fortunate conclusions. Regardless of which possibility assumed, the problem of rising powers and transition is taken care of by nuclear apartheid without conscious effort. A Hobbesian culture was previously assumed to show that nuclear apartheid serves as an extended deterrence measure even under the least desirable social conditions between states.

In conclusion, moral arguments that nuclear powers should dismantle their arsenals are misguided and if taken seriously would lead to a less stable international system with less peace. Similarly, arguments that all states should be nuclear powers because they would all be deterred from conflict miss the mark and the possibility of nuclear conflict would be largely inflated. The

status quo is worth preserving because it is the most normatively justifiable of possibilities. Nuclear apartheid is self-enforcing by bringing about a productive evolution in the culture of anarchy so that rising economic powers no longer find incentives to militarize or proliferate. Because of all this, nuclear apartheid is justified.

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